

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

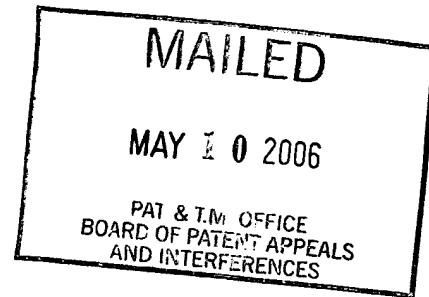
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**Ex parte** JUSTIN CHARLES MOODIE,  
MATTHEW PETER TRAVERS,  
and ADEDAYO ELEGBE

Appeal No. 2006-1157  
Application No. 09/803,928

ON BRIEF



Before HAIRSTON, MACDONALD, and HOMERE, **Administrative Patent Judges.**

HOMERE, **Administrative Patent Judge.**

**DECISION ON APPEAL**

This is a decision on appeal from the final rejection of claims 27 through 38, all of which are pending in this application. Claims 1-26 have been canceled by Appellants.

### **Invention**

Appellants' invention relates generally to a method and computer-readable medium for indicating whether items on a shopping list are located in the vicinity of the shopper. A wireless communication (I50, I60 of Appellants' figure 1) is provided between a portable computing device (e.g. PDA) and a local communication system located in the store. The portable computing device includes a storage medium for storing the shopping list. The portable computing device, upon receiving from the local communication system a short-range signal broadcasting items located in the shopper's vicinity, determines whether any of the items on the shopping list matches the broadcast items. If a match is found, the matched items on the shopping list are highlighted. See Appellants' specification, page 4, lines 18-30.

Claim 27 is representative of the claimed invention and is reproduced as follows:

27. A method of indicating whether items on a shopping list are located in the vicinity of a shopper, the method comprising:

storing a shopping list in a portable computer device,  
wherein the shopping list comprises a plurality of items;

receiving a signal at the portable computer device from a  
short-range, local wireless communications system located in a  
store;

determining from the received signal at the portable  
computer device whether any item on the shopping list is  
available in the store; and

if any of the items on the shopping list are determined to  
be available in the store, providing an indication to a user of  
the portable computer device that the item is available in the  
store.

#### **References**

The Examiner relies on the following references:

Petrovich et al. (Petrovich)	6,101,483	August 8, 2000
Nambudiri et al. (Nambudiri)	6,640,214	October 28, 2003
Borgstrom et al. (Borgstrom)	6,738,053	May 18, 2004

#### **Rejections At Issue**

A. Claims 27-29, 31, 33-35 and 37 stand rejected under 35  
U.S.C. § 102 as being anticipated by Petrovich.

B. Claims 30 and 36 stand rejected under 35 U.S.C.  
§ 103 as being unpatentable over the combination of Petrovich  
and Borgstrom.

C. Claims 32 and 38 stand rejected under 35 U.S.C.  
§ 103 as being unpatentable over the combination of Petrovich  
and Nambudiri.

Rather than reiterating the arguments of Appellants and the Examiner, the opinion refers to respective details in the Briefs<sup>1</sup> and the Examiner's Answer<sup>2</sup>.

#### OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the Examiner's rejections, the arguments in support of the rejections and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in the rebuttal set forth in the Examiner's Answers.

It is our view, after full consideration of the record before us, we agree with the Examiner that claims 27-29, 31, 33-35 and 37 are properly rejected under 35 U.S.C. § 102 as being anticipated by Petrovich. We further agree with the Examiner that claims 30 and 36 are properly rejected under 35 U.S.C.

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<sup>1</sup> Appellants filed an Appeal Brief April 22, 2005. Appellants filed a Reply Brief on August 11, 2005.

<sup>2</sup> The Examiner mailed an Examiner's Answer on June 27, 2005. Examiner mailed an office communication on September 02, 2005, stating that the Reply Brief has been entered and considered. Examiner mailed a supplemental Examiner's Action on November 03, 2005.

§ 103 as being unpatentable over the combination of Petrovich and Borgstrom. Additionally, we agree with the Examiner that claims 32 and 38 are properly rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Petrovich and Nambudiri. Accordingly, we affirm the Examiner's rejections of claims 27-38 for the reasons set forth *infra*.

**I. Under 35 U.S.C. § 102(e), is the Rejection of Claims 27-29, 31, 33-35 and 37 as Being Anticipated By Petrovich Proper?**

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. **See In re King**, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and **Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.**, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

With respect to the Petrovich reference, Appellants argue that "Petrovich does not disclose whether an item on the shopping list is available." In particular, at page 3 of the Brief, Appellants state that:

Petrovich does not disclose a method that determines 'whether any item on the shopping list is available' or that 'provid[es] an indication to the user of the portable computer device that the item is available,' as recited respectfully in claims 27 and 33.

On the contrary, Petrovich merely indicates whether the user is not on an efficient path toward an item. In particular, Petrovich discloses communicating a message 'advising the user 58 when the user 58 has deviated from the efficient path 104.' See Petrovich, col. 10, ll 44-47. Petrovich is completely silent as to what message is communicated if the item is not available.

Further, at page 4, of the Appeal Brief, Appellants state:

There is a clear distinction between Petrovich's method of directing a user through the store and Appellants' method of determining whether an item is available in the store. There is no teaching or suggestion in Petrovich that, if an item is not available in a store, a message is communicated to the user that the item is not available. By contrast, in Appellants' claimed method, if the item is not available in the store, the user is alerted that the item is not available, for example by an alert in the form of an absence of highlighting of the item on the user's PDA.

Appellants further expand on this same argument in the Reply Brief. In particular, at page 3 of the Reply Brief, Appellants state that:

Petrovich never discloses comparing any shopping list with inventory available in the store, and such is not 'necessarily present' in Petrovich as would be required for inherency. The mere placing of an order by transferring data of the order does not disclose confirming if the ordered items are available in the store. Further, the claims require that the determination of whether an item is available be made 'at the portable computer device,' not at a host computer.

To determine whether claim 27 is anticipated, we must first determine the scope of the claim. We note that claim 27 reads

in part as follows:

determining from the received signal at the portable computer device whether any item on the shopping list is available in the store; and if any of the items on the shopping list are determined to be available in the store, providing an indication to a user of the portable computer device that the item is available in the store.

At page 4, lines 24-30, Appellants' specification states:

The PDA may use a short-range local wireless communication system such as Bluetooth™ to interact with transmitters, positioned around a store, which broadcast the items available in their vicinity. An application running on the PDA compares the broadcast items to the items on the stored shopping list and alerts the user when there is a match, preferably by highlighting the items on the shopping list which match.

Thus, the claim does require that broadcast items be compared with items on the shopping list to determine which items on said shopping list are available in the store.

Our reviewing court states in **In re Zletz**, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow." Our reviewing court further states, "the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." **Phillips v. AWH Corp.**, 75 USPQ2d 1321, 1332 (CAFC 2005).

Upon our review of Appellants' specification, we fail to find any definition of the term "available" that is different

from the ordinary meaning. We find the ordinary meaning of the term "available" is best found in the dictionary. We note that the definition most suitable for "available" is "at hand" or "accessible to use".<sup>3</sup>

We appreciate Appellants' position that "available items" means that the matched items are "accessible to use" at the store at the exact time the match is made. However, we find that the claim language does not preclude the reading of "available items" to include items that are usually located in a particular section of the store, and that are not necessarily "accessible to use" at the exact time of the match. Appellants' specification merely indicates that the "available items" are a subset of the "broadcast items" without indicating that the items were broadcast following an inventory and does not teach they are actually present at the store at the exact time of the match (i.e., no such limitation is placed on "at hand" or "accessible to use".)

Now the question before us is what Petrovich would have taught to one of ordinary skill in the art? To answer this question, we find the following facts:

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<sup>3</sup>Webster's II New Riverside University Dictionary, 1988, page 141. Copy provided to Appellants.



1. Petrovich states at column 5, lines 28-33 that:

Shopping establishment kiosk cradle 24 accepts the data associated with the bar codes of the shopping-related items 44 from the portable terminal 40 through the kiosk data interface 28 and the terminal two-way data interface 42 when the portable terminal 40 is received in the kiosk portable terminal-receiving station 26, and then downloads the data associated with the bar codes of shopping-related items 44 to the host computer 16.

2. Petrovich states at column 6, lines 58-65 that:

Terminal 40 can further include a position-sensing module 90 for sensing the position of the user within the shopping establishment 14 and for communicating with the user via the display 72 (or otherwise) when the user has deviated from an optimal shopping path in the shopping establishment 14.

3. Petrovich states at column 10, lines 25-31 that:

Either the hard copy or electronic shopping list can be produced as an optimized shopping list in response to the shopping list database and information contained in the host computer 16 about the location of the items within the shopping establishment 14. The optimized shopping list can be ordered to direct the user through the shopping establishment 14 in an efficient path.

With the above discussion in mind, we find that Petrovich teaches downloading a shopping list in the host database at the store to create an efficient path to help the shopper locate in the store items on the shopping list. One of ordinary skill in the art would have duly recognized from Petrovich's teachings that in order to create the efficient path based on the downloaded shopping list items, a determination of the location

of shopping list items in the store must have already been made. Consequently, we find no error in the Examiner's stated position, which concludes that Petrovich does teach the claimed limitation of determining whether a shopping list item is available in the store.

Therefore, we will sustain the Examiner's rejection of claims 27-29, 31, 33-35 and 37 under 35 U.S.C. § 102(e).

**II. Under 35 U.S.C. § 103, is the Rejection of Claims 30 and 36 as Being Unpatentable over the combination of Petrovich and Borgstrom Proper?**

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a **prima facie** case of obviousness. **In re Oetiker**, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). **See also In re Piasecki**, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. **In re Fine**, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. **Oetiker**, 977 F.2d at 1445, 24 USPQ2d at 1444. **See also Piasecki**, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." *In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

With respect to dependent claims 30 and 36, Appellants argue at page 5 of the Appeal Brief that Petrovich does not teach the step of determining whether an item is available in the store. We have addressed this argument above with respect to claim 27 and we do not agree with Appellants. Appellants further argue that Borgstrom does not cure these deficiencies. Additionally, Appellants argue that there is no evidence of a motivation to combine Petrovich with Borgstrom to yield Appellants' claimed invention.

We note that dependent claims 30 and 36 read in part as follows:

a local wireless communication system [that]  
complies with the Bluetooth communications  
standard.

Thus, the claims do require a communication system that complies with the Bluetooth communications standard. See page 4, lines 24-26 of Appellants' specification.

While the Federal Circuit indeed warns against employing hindsight, its counsel is just that - a warning. That warning does not provide a rule of law that an express, written motivation to combine must appear in prior art references before a finding of obviousness. Stated differently, this court has consistently stated that a court or examiner may find a motivation to combine prior art references in the nature of the problem to be solved. **Ruiz v. A.B. Chance Co.**, 357 F.3d 1270, 1276, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004); Also, **Pro-Mold & Tool Co. v. Great Lakes Plastics Inc.**, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630; **In re Huang**, 100 F.3d 135, 139 n.5; 40 USPQ2d 1685, 1688 n.5 (Fed. Cir. 1996).

We agree with the Examiner that the combination of Petrovich and Borgstrom is proper. The Petrovich reference is relied upon for its teaching of a personal shopping system (figure 1), which downloads a shopping list (44) in the store's database (16) to create an efficient path to help the shopper locate the shopping list items in the store. The Borgstrom reference is relied upon for its teaching of a wireless

environment that complies with the Bluetooth communications standard. (figure 11, item 222). Further, Borgstrom provides a motivation for combining its teachings with others. See column 2, lines 23-30. Thus, the combination of Petrovich and Borgstrom does teach a communication system that complies with the Bluetooth technology standard, and that enables a shopper to determine whether an item on a shopping list is available in the store.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the invention as set forth in claims 30 and 36. Accordingly, we will sustain the Examiner's rejection of claims 30 and 36.

**II. Under 35 U.S.C. § 103, is the Rejection of Claims 32 and 38 as Being Unpatentable over the combination of Petrovich and Nambudiri Proper?**

With respect to dependent claims 32 and 38, Appellants argue at page 6 of the Appeal Brief that Petrovich does not teach the step of determining whether an item is available in the store. Appellants further argue that Nambudiri does not cure these deficiencies. Additionally, Appellants argue that

there is no evidence of a motivation to combine Petrovich with Nambudiri to yield Appellants' claimed invention.

We note that dependent claims 32 and 38 read in part as follows:

receiving a selection of a recipe from a user;  
determining a list of items based on ingredients  
specified in the recipe; and storing the list of  
items on the portable computer device.

At page 6, lines 19-23, Appellants' specification states that:

In the shopping environment SE, the user may  
Send (S70) an SMS message to the SMS server  
containing the identifying phrase for a desired  
recipe. The database server returns the list of  
ingredients from the corresponding recipe record,  
and the list is transmitted (S80) to the user's  
SMS-enabled mobile phone ST.

Thus, the claims do require a shopping list of items that include ingredients for a recipe.

We agree with the Examiner that the combination of Petrovich and Nambudiri is proper. The Petrovich reference is relied upon for its teaching of a personal shopping system (figure 1), which downloads a shopping list (44) in the store's

database (16) to create an efficient path to help the shopper locate the shopping list items in the store. The Nambudiri reference is relied upon for its teaching of a portable electronic system for use in a personal shopping system, wherein the portable electronic system includes a shopping list of ingredients that make up a recipe(column 12, lines 16-52). Further, Nambudiri provides a motivation to combine its teachings with others. See column 2, lines 33-36. Thus, the combination of Petrovich and Nambudiri does teach a portable electronic terminal that enables a shopper to determine whether ingredients on a shopping list are available in the store.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the invention as set forth in claims 32 and 38. Accordingly, we will sustain the Examiner's rejection of claims 32 and 38.

**CONCLUSION**

In view of the foregoing discussion, we have sustained the Examiner's decision rejecting claims 27-29, 31, 33-35 and 37 under 35 U.S.C. § 102. We have also sustained the Examiner's decision rejecting claims 30, 32, 36 and 38 under 35 U.S.C. § 103. Therefore, we affirm.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**

  
KENNETH W. HAIRSTON  
Administrative Patent Judge

  
ALLEN R. MACDONALD  
Administrative Patent Judge

  
JEAN R. HOMERE  
Administrative Patent Judge

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Appeal No. 2006-1157  
Application No. 09/803,928

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auxiliary verb • Avogadro's law

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—n., pl. **-ries**. 1. An individual or group that assists or functions in an auxiliary capacity. 2. A member of a foreign body of troops serving a country in war. 3. An auxiliary verb. 4. Naut. A sailing vessel equipped with a motor. 5. A vessel, as a tug or supply ship, designed for and used in other than combat services.

**auxiliary verb** n. A verb, as *have*, *can*, or *will*, that accompanies particular forms of another verb of a clause to form a phrasal unit expressing person, number, tense, mood, voice, or aspect.

**aux-in** (ók'sin) n. [*< Gk. auxein, to grow.*] Any of several plant hormones or similar substances produced synthetically that affect growth by causing the development of larger, elongated cells. —**aux-inic** adj. —**aux-in'i-cal-ly** adv.

**Av** (áv, áb) also **Ab** (áb, áv, óv) n. [Heb. ábh *< Akkadian abu.*] The 11th month of the Hebrew year. —See table at **CALENDAR**.

**avail** (ə-váil) v. **availed**, **availing**, **avails**. [ME *availen*: *a-* (intensive) + *Ofr. valoir, avail*, to be worth *< Lat. valēre.*] —vt. To be of use or advantage to: **HELP** *< Can anything avail us now? >* —vi. To be of use, value, or advantage: **SERVE**. —n. Use, benefit, or advantage *< struggled to no avail >* —**avail** (oneself) of. To make use of *< Please avail yourself of our services. >* —**availing-ly** adv.

**available** (ə-váilə-bəl) adj. 1. Accessible for use: at hand. 2. Having the qualities and the willingness to take on a responsibility *< a list of available baby-sitters >*. 3. Archaic. a. Capable of bringing about a desired end. b. Beneficial. —**avail-a-bil'i-ty**, **avail-a-ble-ness** n. —**avail-a-bly** adv.

**avalanche** (ə-vá-láńch) n. [Fr. *< dial. Fr. avalantse.*] 1. A fall or slide of a large mass of material, as snow, rock, or earth, down a mountainside. 2. Something resembling an avalanche *< an avalanche of protests >* —v. **lanced**, **lanching**, **lanches**. —vi. To fall, as an avalanche. —vt. To overwhelm.

**avalanche lily** n. [So called because it grows near the snow line and blooms when the snow begins to melt.] A plant, *Erythronium montanum* of western North America, with white flowers.

**Avalon** (ə-vá-lón) n. A legendary island paradise to which King Arthur went at his death.

**avant-garde** (ə-vánt-gárd) n. [Fr., vanguard.] A group active in the invention and application of new techniques in a given field, esp. in the arts. —**avant-garde** adj.

**avarice** (ə-vá-ris) n. [ME *< Ofr. < Lat. avaritia < avarus*, greedy *< avertē*, to desire.] Excessive desire for wealth: **GREED**.

**avaricious** (ə-vá-rish'as) adj. Excessively greedy, esp. for wealth. —**avaricious-ly** adv. —**avariciousness** n.

**avast** (ə-vást) interj. Naut. —Used as a command to stop or desist.

**avastar** (ə-vást-ár) n. [Skt. *avatara*: *ava*, down + *tarati*, he crosses.] 1. a. An incarnation or embodiment, as of a quality or concept. b. A varying manifestation or aspect of a particular entity. 2. The incarnation of esp. a Hindu deity in human form.

**avast** (ə-vást) interj. Naut. —Used as a command to stop or desist.

**ave** (ə-vá) n. [Lat., hail!] 1. An expression of greeting or farewell. 2. Ave. The Ave Maria.

**Ave Maria** (ə-vá-má-rí-ə) n. [ME *< Med. Lat., hail, Mary.*] The Hail Mary.

**avenger** (ə-vénj) vt. **avenged**, **avenging**, **avenges**. [ME *avengen* *< Ofr. avengier*: *a-*, to (*< Lat. ad-*) + *vengier*, to vindicate *< Lat. vindicare.*] 1. To exact revenge or satisfaction for. 2. To take vengeance on behalf of. —**avenger** n. —**avenging-ly** adv.

\* **syns**: AVENGE, REDRESS, REPAY, REQUIT, VINDICATE v. core meaning: to exact revenge for *< avenged their child's murder >*

**avens** (ə-vénz) n., pl. **avens**. [ME *avence* *< Ofr.*] 1. A plant of the genus *Geum*, with irregularly shaped leaves, white, yellow, or reddish flowers, and plumed seed clusters. 2. A plant of the genus *Dryas* of flowers, and mountainous and arctic regions, related to the avens.

**aventurine** (ə-vén'tú-rín) n. [*< aventurine*, accident (so called because of its accidental discovery). —see **ADVENTURE**.] 1. An opaque or semitranslucent brown glass flecked with small metallic particles, often of copper or chromic oxide. 2. A variety of quartz or feldspar flecked with particles of mica, hematite, or other materials. —**aventurine** adj.

**avenue** (ə-vé-nú) n. [Fr. *< Ofr., p.p. of avenir*, to approach *< Lat. advenire*, to come to. —see **ADVENT**.] 1. A wide street or thoroughfare. 2. a. A broad roadway lined with trees. b. Chiefly Brit. The drive leading from the main road up to a country house.

3. A means of approach or access *< new avenues of negotiation >*

**aver** (ə-vér) vt. **averred**, **averring**, **avers**. [ME *averren* *< Ofr. averer* *< Lat. advertere*: *ad-*, to + *Lat. verus*, true.] 1. To declare positively: **AFFIRM**. 2. Law. a. To assert formally as a fact. b. To prove or justify. —**averment** n. —**averrable** adj.

**average** (ə-vér-ij, ə-vér-ij) n. [Obs. *avertie*, shipping charges *< Ofr. avarie*, damage to shipping *< Ofr. avaria* *< Ar. awdriyah*, damaged goods *< awar*, blemish.] 1. Math. a. A number that typifies a set of numbers of which it is a function. b. The arithmetic mean. 2. A typical or usual level, degree, or kind. 3. Law. a. The incurrence of

distribution of such a loss among concerned parties. c. Charges incurred through such a loss. 4. Small expenses or charges that are usually paid by the master of a ship. —adj. 1. Of, relating to, or being a mathematical average. 2. Typical: usual *< of average height >*. 3. Assessed in compliance with the laws of average. —v. **aged**, **aging**, **ages**. —vt. 1. To calculate the average of. 2. To accomplish or obtain an average of *< average \$20 a night in tips >*. 3. To distribute proportionately. —vi. 1. To be or amount to an average. 2. To buy or sell more goods or shares to obtain more than an average price.

\* **word history**: Average appears in English around 1500 as a maritime term referring in general to any expense, as a tax or loss from damage, over and above the cost of shipping freight. Such expenses were usually distributed proportionally among the interested parties in the venture. It is from the notion of the distribution of a sum to a number of persons that the idea of a mathematical average—the arithmetic mean—developed, and from this sense of a "mean" or "medium" figure the meanings "typical" and "usual" are derived.

**averse** (ə-vúrs) adj. [Lat. *aversus*, backward, p.p. of *avertere*, to avert.] 1. Having a feeling of great distaste or aversion *< was averse to being in crowds >*. 2. Bot. Turned away from the central stem or axis. —**aversely** adv. —**averse-ness** n.

**aversion therapy** n. A therapy designed to modify antisocial habits or harmful addictions by creating a strong association with a disagreeable stimulus.

**aversive** (ə-vúrs'iv, -ziv) adj. Causing avoidance of an unpleasant or punishing stimulus, as in techniques of behavior modification. —**aversively** adv.

**avert** (ə-vúrt) vt. **averted**, **averting**, **averts**. [ME *averten* *< Ofr. dvertir* *< Lat. avertere*: *ab-*, away from + *vertere*, to turn.] 1. To turn away *< avert one's face >*. 2. To ward off or prevent *< avert catastrophe >*. —**avert-ible**, **avert-able** adj.

**Avesta** (ə-véstə) n. [Pers. *apastak*, text.] The sacred writings of the ancient Persians.

**Avestan** (ə-véstən) n. The eastern dialect of Old Iranian and the language of the Avesta. —adj. Of or relating to the Avesta or Avestan.

**avian** (ə-vé-an) adj. [*< Lat. avis*, bird.] Of, relating to, or typical of birds.

**aviary** (ə-vé-ér-ē) n., pl. **-ies**. [Lat. *avianum* *< avis*, bird.] A large enclosure or cage for confining birds. —**aviarist** (ə-ríst, -éríst) n.

**aviation** (ə-vé-á-shən, ə-vé-) n. [Fr. *< Lat. avis*, bird.] 1. The operation of aircraft. 2. The production of aircraft. 3. Military aircraft.

**aviation medicine** n. The branch of medicine including aeromedicine and space medicine.

**aviator** (ə-vé-á-tor, ə-vé-) n. [Fr. *aviateur* *< aviation*, aviation.] One who operates an aircraft: **PILOT**.

**aviator glasses** pl.n. Tinted eyeglasses with a lightweight metal frame.

**aviatrix** (ə-vé-á-triks, ə-vé-) n. A woman who operates an aircraft.

**aviculture** (ə-ví-kúl'chər, ə-ví-) n. [Lat. *avis*, bird + *-culture*.] The raising or keeping of birds. —**aviculturist** n.

**avid** (ə-víd) adj. [Fr. *avide* *< Lat. avidus* *< avertē*, to desire.] 1. Ardently eager or greedy *< avid for excitement >*. 2. Marked by great enthusiasm *< an avid bicyclist >*. —**avid-ly** adv.

**avidin** (ə-víd-in) n. [AVID + -IN (from its affinity for biotin).] A protein in egg albumin capable of inactivating biotin and consequently inhibiting the growth of certain bacteria.

**avidity** (ə-víd-i-tē) n. 1. a. Eagerness. b. Excessive desire: **GREED**. 2. Chem. a. The dissociation-dependent strength of an acid or base. b. Degree of affinity.

**avifauna** (ə-ví-fó'nə, ə-ví-) n. [Lat. *avis*, bird + *FAUNA*.] All the birds of a specific region or time division. —**avifaunal** adj.

**avigation** (ə-ví-gá'shən) n. [AVI(ATION) + (NAVI)GATION.] Navigation of aircraft. —**avi-gator** n.

**avionics** (ə-vé-ón'iks, ə-vé-) n. [AVI(ATION) + (ELECTR)ONICS.] (sing. in number). The science and technology of electronics applied to aeronautics and astronautics. —**avionic** adj.

**avirulent** (ə-ví-rú-lənt, ə-ví-rú-) adj. Not virulent.

**avitaminosis** (ə-ví-tə-mí-nó'sis) n. A disease, as scurvy, caused by a deficiency of vitamins. —**avitaminotic** (nót'ik) adj.

**avo** (ə-vó) n., pl. **avos**. [Port.] —See table at **CURRENCY**.

**avocado** (ə-vó-ká'dó, ə-vó-) n., pl. **-dos**. [Mex. Sp. *aguacate* *< Nahuatl aguacatl.*] 1. A tropical American tree, *Persea americana*, grown for its edible fruit. 2. The oval or pear-shaped fruit of the avocado, with leathery green or blackish skin, a large seed, and greenish-yellow pulp.

**avocation** (ə-vó-ká'shən) n. [Lat. *avocatio*, diversion *< avocare*, to call away: *ab-*, away + *vocare*, to call.] 1. An activity pursued in addition to one's regular work or profession, usu. for enjoyment: **HOBBY**. 2. Archaic. One's regular work or profession.

**avocet** (ə-vó-sét) n. [Fr. *avocette* *< Ital. avocetta.*] A long-legged shore bird of the genus *Recurvirostra*, with a long, slender, upturned beak.

**Avogadro number** (ə-vó-gá'dró, ə-vó-) n. [After Amadeo Avogadro (1776-1856).] The number of molecules in a mole of a sub-

C

D

E

F

G

H

I

J

K

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M

N

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